**IT Applications Unit 3, AOS 1, Online Communities**

1. Complete the following, from pgs, 18-28: **Network hardware and software**

**Networks are classified according to below and we will study the following:**

1. **Network Categories: LAN, WAN**
2. **Network Architecture, client-server; peer-to-peer; internet peer-to-peer; intranet**
3. **Network communication standards**
4. **Network hardware and software**
5. **Transmission media**
6. **Network security**

**Network hardware and software**

**Network Operating systems**

1. Describe the role of the network operating system.

NOS is the software that controls traffic on the network and defines how devices will communicate with each other.

1. What are the typical tasks of network server software?

Network server software is installed on the network servers and performs tasks such as controlling file access, managing print queues, keeping track of users through their UserIDs and passwords, authenticating access to network servers and maintaining a log of network usage and problems.

1. What is the role of network client software?

Network client software is installed on each workstation and establishes a connection, through the network interface card, between the workstation and other devices on the network.

1. List the 3 providers of network operating systems.

Such as Microsoft, Novell and Apple.

**Web client software**

1. List the typical client software

Web client software includes web browsers, electronic mail.

**Software for setting up websites**

1. Describe the role of http protocol.

The Hypertext Transfer Protocol (HTTP) is an application protocol for distributed, collaborative, hypermedia information systems. HTTP is the foundation of data communication for the World Wide Web.

1. What is the role of web server software?

Web server software provides content using the http protocol.

1. What is the role of a proxy server?

Proxy server can be used to sit between the client and the request can go to a proxy server that substitutes its IP address for that for user. When the proxy server receives the page from the website it is then able to direct that page to the user.

* 1. What are the advantages of using a proxy server?

Proxy server can protect you from outside network. And it’s faster when you access a webpage again.

1. Describe the role of the following software:
   1. SMTP

Simple mail transfer protocol is used on electronic mail servers to handle the sending and receiving of client emails.

* 1. POP3

A post office protocol server is used to store messages.

* 1. FTP

File transfer protocol software enables the uploading and downloading of files between computers on the Internet.

* 1. Web software applications

Web software applications are programs designed for use on a website and include blogging software, forums and wikis.

**Cross-platform web software**

1. What is meant by a Cross-platform application? List egs.

A cross – platform application uses an execution engine and compiler with libraries so that is runs identically on all machines.

1. What is adobe flash?

Adobe Flash is a software tool that enables website developers to combine interactive content with text, three – dimensional graphics, audio and video.

**Network Hardware**

Describe the characteristics and role of the following network hardware devices:

1 Network interface card

NIC is used to link a computer or resource to a network.

2 Wireless access point

A wireless access point is used to connect wireless communications devices to a wired or wireless network.

3 Switches

A switch is a device that stores the address of every device down each wire leading from the switch.

4 Routers

A router is a communications device that allows several remote LANs to connect over a WAN, or to join a number of LANs into one bigger LAN.

5 modems

A modem is a device that is used to send a computer’s digital signal over a telephone line.

For each of the following modem types, in a table indicate the following:

Modem download speed

i) dial up modem

An external modem is a stand-alone device that attaches to a special serial port, such as RS – 232, on a computer with a standard.

ii) digital modems

* + 1. DSL

DSL is a digital subscriber line. It’s a digital line alternative for the small business or home usrr.

* + 1. ADSL & ADSL 2 +

ADSL is an asymmetric digital subscriber line is one of the more popular types of DSLs.

iii) cable modems

Cables are used within buildings and underground to connect remote buildings.

6 How does a digital modem differ from a dial-up modem?